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AUTHOR Shore, Rima, Ed.; And Others
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ABSTRACT

A program that provided instructional and non-instructional services to Spanish speaking students of limited English proficiency at Morris High School in New York City during 1980-81 is described in the report. The instructional component included English as a Second Language, native language arts, mathematics, science, and social studies. The non-instructional component consisted of supportive services, home visits, curriculum development, staff development, and parent/community participation. Evaluation indicated that: 1) significant gains were achieved in English as a Second Language and Spanish readings; 2) while mathematics passing rates among program students fell below the 70 percent criterion level, the bilingual students achieved passing rates that were similar to or better than that of the total school population; 3) science achievement among program participants was higher in the fall than in the spring; 4) achievement in both social studies and native language courses tended to increase with grade level; and 5) the average attendance of program students exceeded school-wide attendance rates. The school principal and the bilingual program staff were identified as influential in bringing about the program success. (Author/MJL)

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FINAL EVALUATION REPORT

E.S.E.A. TITLE VII

Grant Number: G007904166

Project Number: 5001-56-17621

MORRIS HIGH SCHOOL

BETTERMENT THROUGH BILINGUALISM

1980-1981

Principal:
Frances Vazquez

Director:
Frances Vazquez

Prepared by the
BILINGUAL EDUCATION EVALUATION UNIT

Ruddie A. Irizarry, Manager
Judith A. Torres, Evaluation Specialist
Rima Shore, Ph.D., Consultant
Isaura Santiago, Ph.D., Consultant
R. Frank Eadie, Consultant

UD 022 328

NEW YORK CITY PUBLIC SCHOOLS
OFFICE OF EDUCATIONAL EVALUATION
RICHARD GUTTENBERG, ADMINISTRATOR

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BETTERMENT THROUGH BILINGUALISM
AT MORRIS HIGH SCHOOL

Location:	166 Street and Boston Road, Bronx
Year of operation:	1980-1981, second year of funding
Target language:	Spanish
Number of participants:	319 students
Principal:	Frances Vazquez
Project director:	Frances Vazquez
Bilingual coordinator:	Irma Nesci

INTRODUCTION

Betterment through Bilingualism in 1980-81 completed the second of its three-year funding cycle at Morris High School. The program provided instructional and non-instructional services to 319 Spanish-speaking students of limited English proficiency; it was supported with monies from Title VII, as well as with tax-levy, Title I, and supplemental allocation funds.

The project director, who was instrumental in securing funding for the program and had extensive experience in bilingual education, retained that position when she was appointed principal of Morris High School. Day-to-day administrative tasks were carried out by the program coordinator who worked closely with the resource specialist; the staff was supervised by the assistant principal who headed the foreign languages, E.S.L., and bilingual department.

The instructional program encompassed intensive instruction in English as a second language, classes in the native language and cul-

ture, and content-area offerings in math, science, and social studies. Distinguishing features of the instructional component included its extensive language offerings and rigorous two-language policy. The broad array of language courses included elective E.S.L. classes oriented to students' interests, and courses geared to those students from Spanish-speaking homes who were U.S.-born and English-dominant but tested into the bilingual program. The language policy, carefully formulated and forcefully applied, guided language usage in the classroom and worked toward eliminating code-switching.

The non-instructional component included: supportive services, including the services of a family assistant who visited the home of each student during the school year; curriculum development; staff development; and parental/community participation.

This report characterizes the project--its setting, goals and policies, its staff and participants. It documents each major area of operation, and provides student outcomes for each instructional area and for attendance. The report is founded on information gathered during site visits and by means of various evaluation instruments devised by the Office of Educational Evaluation. The instruments included: program documentation questionnaire and the data capture form. Site visits were conducted in late spring, 1981 by two evaluators. Because these visits were made late in the school year, when testing and end-of-year events disrupted ordinary classroom activities, interviews with teachers and students and a review of teacher observation reports took the place of classroom observation. The evaluator's findings are reported in the conclusions and recommendations section of the narrative.

I. CONTEXT

"There are few reasons for people to want to live here," a program staff member remarked in characterizing the South Bronx neighborhood in which Morris High School is set. Morris has been the zoned high school for the blighted area which came dramatically to national attention in 1978 when President Carter, accompanied by an entourage of politicians and newspeople, visited Charlotte Street and designated the neighborhood for redevelopment. In 1981, economic problems and the attendant social cconditions, including violent crime, persist; while some construction is underway, sub-standard housing remains the norm.

Morrisania is not an economically self-sustaining community. While some residents commute to work in other parts of the city, unemployment is the rule rather than the exception. Small businesses line certain streets, particularly Third Avenue, but abandoned tenements and shells of burnt-out buildings dominate much of the landscape. Reconstruction has no way kept pace with decay, and the population of the neighborhood--almost exclusively black and Hispanic--has diminished over the last several years. Many Morris students live in apartments which may lack even bare necessities. Others live in the Forest Avenue projects. New projects are under construction in the Boston Road area, at 163rd Street and Caldwell.

The bilingual program was previously housed at the Morris High School Annex on Stebbins Avenue; when the annex was closed due to the over all decrease in the school's enrollment, the project was relocated to the fourth floor of the main high school building. It assumed quarters in a rather cramped two-room office which serves as both resource

center and office space for project staff.

The school building, almost fortress-like, rises formidably from its setting on Boston Road's hill. The school administration has enlisted the help of teachers, students, and the community in its effort to have the building designated a city landmark. While violent crime and drug traffic are hardly unknown in the general area, the school's immediate vicinity has been relatively crime-free. In autumn, 1980, a teacher was mugged by young people in the neighborhood; however, reported incidents of this kind have been uncommon. The program coordinator, who attended Morris High School in the fifties, shared her impression that within the school, violence, gang activity, and overt drug dealing had diminished since her school days.

Nevertheless, the school's location and adverse publicity received in the past has posed a public relations problem for the principal, who has worked with unflagging determination to enhance the school's image in the eyes of the public, students, and particularly teachers and other professionals whom she would like to attract to the school. The principal referred to herself as a "bug on grafitti," and her efforts to clean up the school have included attention to the state of its classrooms, corridors, and grounds.

Morris is an open-zone school; students from various sections of the Bronx may enroll. Two-thirds or more come from Morrisania, from the area to the southwest which reaches toward Manhattan. Others come from the Walton or Taft High School zones, that is, from the Fordham Road area, the Kingsbridge area, Sedgewick, or the Concourse. Others come from the West Bronx. Commutors from other boroughs include only

those students who may have moved but wish to graduate from Morris.

The school cooperates with whatever agencies or resources are available in the community, particularly those which may help students to obtain summer or part-time employment. (See the section on supportive services.)

II. PROJECT DESCRIPTION

HISTORY

Morris High School offered one of the city's first academic programs geared to non-native speakers of English. In 1967, an English as a second language program was introduced under the auspices of the school's speech department. After teaching this course for a number of years, the speech teacher was appointed assistant principal, and oversaw a bilingual program which offered basic E.S.L. courses, as well as math and social studies instruction. These services were supported by tax-levy funds.

In 1975, bilingual services were expanded and unified into a mini-school structure. At this point, the program provided instruction in E.S.L., foreign languages, and the three content areas--math, science, and social studies. Teachers in all areas were supervised by the assistant principal who headed the bilingual program, not by the assistant principals for the various instructional departments; at the same time, there was frequent and substantive interaction between the assistant principal of the bilingual program and the heads of the math, social studies, science, and English departments.

In 1979, a proposal for Title VII funds was submitted by Morris High School to perpetuate and fortify bilingual services provided to Spanish-dominant students at the school. The proposal aimed to supplement the instructional program with supportive services, curriculum development, and cultural events for the program's students and for the community. The project was funded, and the assistant principal for foreign languages, E.S.L., and the bilingual department became the pro-

ject director. During the same year when she became principal of Morris High School, she remained the project director and retained responsibility for the proposed goals and objectives.

In outlining the administrative changes which led to her overseeing the bilingual program in two capacities, the principal noted that commitment to bilingual education is a strong tradition at Morris: three of the past four principals of the school had previously worked as assistant principals of foreign language departments, and in this way were directly or indirectly involved with bilingual studies.

ORGANIZATION

As project director, the principal shapes policy and guides the staff in making the kinds of decisions which will affect the future of bilingual education at Morris. She meets with the program coordinator, for example, to discuss the development of future grants, and with the assistant principals to discuss staff development strategies. Because she has similar responsibility with respect to each of the school's departments and funded programs, she does not take part in the day-to-day staff supervision or program administration. These functions are carried out by the assistant principal who heads the foreign languages, E.S.L., and bilingual department, and by the program coordinator. In the program's second year, new appointments were made to both of these key positions.

The assistant principal, a licensed supervisor, assumed responsibility for staff development, and has worked closely with the teaching and non-teaching members of the bilingual staff. The program coordina-

tor, who was appointed when the first year's coordinator took a job running another Title VII program in the city, had previously taught typing to bilingual program students; in this way, she had been involved with program participants, but had viewed the program from the outside. In assuming her new responsibilities she was assisted by the resource specialist, who has taught at Morris for a decade and has worked in the bilingual department for six years; he had been involved in administrative aspects of the program during its first year as well. The program coordinator stressed that they had worked as "co-coordinators," sharing administrative and other tasks in an efficient and cooperative manner.

The close cooperation of the assistant principal, program coordinator, and resource specialist was facilitated by the fact that they share cramped office space in one of the project's two rooms. Together, they have coordinated the efforts of the staff: 22 teachers, 5 paraprofessionals, and the staff members providing support services. The tables below indicate the funding sources supporting these positions.

Table 1. Funding of the instructional component.

SUBJECT AREA	FUNDING SOURCE	NUMBER OF PERSONNEL: TEACHERS	PARAS.
E.S.L.	Title I	3	3
	Supplemental	2	
Reading (English)	Tax levy	4	
	Title VII		1
	Supplemental	.2	
Native language	Tax levy	5	
Mathematics	Tax levy	2.4	
	Title VII		1
	Supplemental	2	
Social studies	Tax levy	2.4	
	Supplemental	.2	
Science	Tax levy	2	
	Supplemmental	.2	
Other	Supplemental	.4	
Total		22.0	5.0

Table 2. Funding of the non-instructional component.

COMPONENT	FUNDING SOURCE(s)	PERSONNEL
Administration	Title VII	1 Program coordinator
Supervision and staff development	Tax levy	1 Asst. Principal
Curriculum development	Title VII	1 Resource specialist
Supportive Services	Title VII Tax levy Title I	1 Grade advisor 1 Bilingual counselor 1 Counselor
Parental and community involvement	Title VII	1 Family assistant
Other	Title VII	1 Bilingual secretary

A primary goal of the program, and the principle underlying its mini-school concept, has been the continuity of services to participants. In the instructional component, close coordination has allowed application of the language policy described below. In terms of supportive services, it allows the program to follow its students for as long as possible, to facilitate successful transition into the mainstream program. The principal remarked that in some respects, location of the program in the annex had been advantageous in developing the unity which is crucial to coordinating and reinforcing policy, but that since the program was relocated, the close-knit staff has continued to work together to ensure continual assessment of each student; when possible, common preparation periods have been scheduled to maximize interaction. The tradition of Friday get-togethers of all teachers who work with bilingual students has continued, and in general, teachers have shared perceptions of the program's participants and their needs. Relations with the mainstream faculty have been facilitated by the fact that many of the teachers on the bilingual staff have taught in the mainstream as well. In addition, the bilingual department in May made a presentation to the entire faculty, describing its goals and achievements.

GOALS AND OBJECTIVES

The efforts of the program staff, and of the parents and community members who have supported its work, are channeled toward developing in students the English-language skills which will make possible a smooth transition into the mainstream. This transition is negotiated in the context of an overall instructional program which is bilingual and bicultural in approach. At the same time, the program staff pursues the

following long-range goals:

--to build and reinforce in bilingual students positive attitudes toward themselves and toward their education, and toward their future role as students, employees, and citizens;

--to conduct research on methodology and curriculum in bilingual education which will provide a basis for ongoing staff development;

--to provide parents with the incentive and the skills necessary to play a strong and consistent part in the children's education;

--to afford cultural opportunities to students who may otherwise not venture beyond their neighborhood or borough;

--and to provide the supportive services which will help students to deal with the practical or personal problems which might otherwise keep them out of the classroom, and ultimately out of the labor market.

The program proposal outlined specific objectives for each staff position, as well as for parents, and outlined ten areas in which the program might make an impact on the target population:

--The growth in English reading demonstrated between the time of pre- and post- standardized tests will be significantly higher than that of youngsters in the mainstream.

--The improvement in Spanish reading evident at the time of the post-test will be significant.

--The drop-out rate of the target population will be measurably lower than their counterparts in the monolingual classes.

--At least 60 percent of the students in the program will attend one or more of the extracurricular activities available to them. In the past this percentage has been much lower. At least 20 percent of the youngsters in the program will perform in one or more of the school wide assembly programs. Such participation would be an indication of better integration with the school at large.

--A greater percentage of the bilingual parents will be encouraged to take a more active role in the education of their children.

--The rate of daily absenteeism of the bilingual students will be significantly lower than that of their schoolmates in monolingual classes.

--Students in the program will be afforded the rare opportunity to study advanced subjects such as biological ecology and geometry bilingually.

--Pupils will receive more individualized attention because of the presence of an educational assistant in the classroom.

--The passing rate in the bilingual classes will be higher than that in equivalent mainstream classes.

--More bilingual pupils will be provided with Spanish language textbooks in the major subject areas.

LANGUAGE POLICY

The formulation and rigorous application of a language policy which guides, in specific terms, the use of English and Spanish in content-area coursework, distinguishes the program at Morris from other bilingual projects visited by the evaluator.

The policy was initiated by the principal who, when she supervised bilingual teachers as an assistant principal, felt that instruction suffered from too much variation in language usage, and particularly from code-switching. While this practice resulted in part from the difficulty in locating and attracting teachers to the school who were truly bilingual, she was convinced that the situation could be remedied. In work with teachers, she began emphasizing the problems which stem from mixing languages; she found that she got more cooperation and better results when she spelled out her expectations in specific terms.

The policy which was formulated at that time, and which remains in effect, calls for the use of English and Spanish in every content-area class, and outlines how the policy should be carried out in the structuring of class time, in curriculum development, and in staff development. The implementation of this policy is discussed in the sections of this report which deal with each of those three areas.

Table 3. Plan for transition from Spanish to English.

GRADE	E.S.L.	SPANISH LANG. ARTS	SOCIAL STUDIES	SCIENCE	MATH	PHYSICAL ED. & ELECTIVES
9	100% Eng.	100% Spanish	85% Spanish	85% Spanish	85% Spanish	100% English
10	100% Eng.	100% Spanish	75% Spanish	75% Spanish	75% Spanish	100% English
11	100% Eng.	100% Spanish	60% Spanish	60% Spanish	60% Spanish	100% English
12	100% Eng.	100% Spanish	20% Spanish	20% Spanish	20% Spanish	100% English

III. STUDENT CHARACTERISTICS

DEMOGRAPHIC DATA

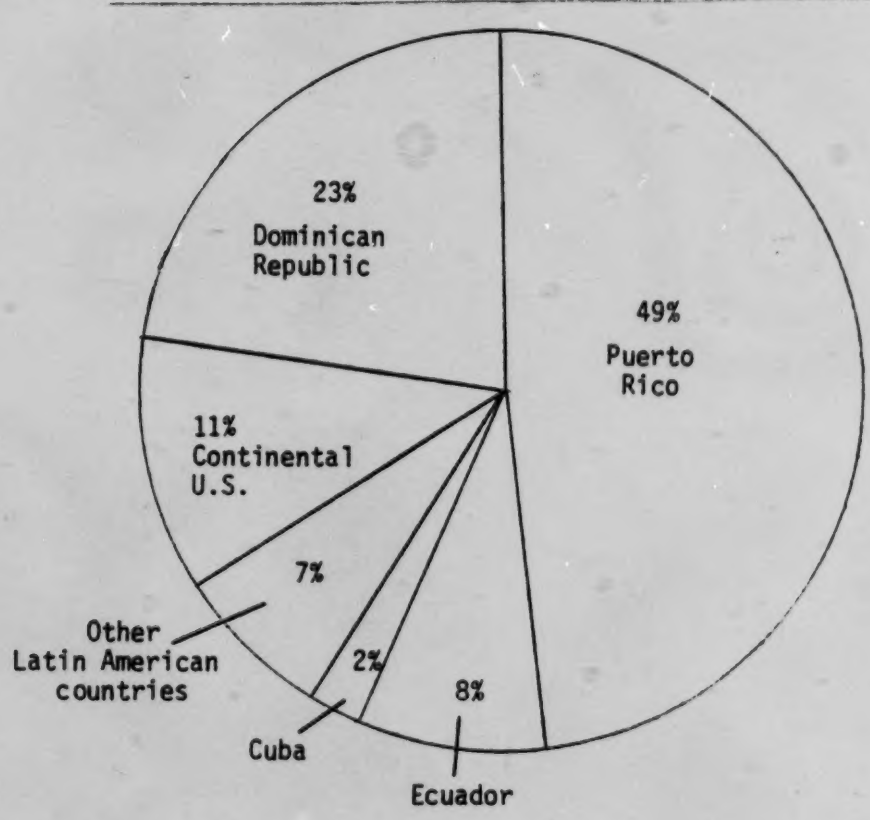
Betterment through Bilingualism in 1980-81 received funding on the basis of a target population numbering 300. The actual number of participating students fluctuated due to discharge or enrollment during the school year. The program coordinator furnished data on a total of 319 students.

The program functioned in the context of a school whose student body of 2,222 was two-thirds Hispanic, one-third black American. A total of 590 students--27 percent of the school's Hispanic students--were identified as being of limited English proficiency (LEP) when they scored below the twenty-first percentile on the English version of the Language Assessment Battery (LAB), and scored higher on the Spanish version. The students not served included LEP students who scored below the twenty-first percentile on the English LAB but scored lower in Spanish; students who were opted out of the program by their parents; truants and students who were discharged because of age or other reasons.

The chart which follows indicates the countries of origin of program students. As the chart suggests, approximately one in eight students was born in the continental United States; most of these students were of Puerto Rican origin. Approximately half have been in the continental U.S. for four or more years.

The program included students in the ninth, tenth, eleventh, and twelfth grades; more than half of the participants were ninth graders. Only a dozen were in the twelfth grade. These primarily included recent arrivals; U.S.-born students were mainstreamed before reaching the eleventh grade.

Chart 1. Birthplaces of program students.



- More than half of program students are of Puerto Rican origin; of these, one in six was born in the continental United States.
- A quarter of program students were born in the Dominican Republic.

Ninth-grade students come to Morris from 19 feeder schools in four community school districts in the Bronx: C.S.D.'s 7, 8, 9, and 12. Most of the feeder schools have bilingual programs of their own, and the guidance counselor and grade advisor held articulation meetings with counselors from these schools to describe the work of the bilingual program, as well as of other departments and funded programs at Morris. Ninth graders entering the program from feeder schools have consistently had the highest number of failures and absences.

Students have entered the program with a broad range of preparedness and linguistic skills. Of those who are quite proficient in Spanish, some are quite advanced and have taken advanced placement tests in writing. A second group are Spanish-dominant but functionally illiterate. A third group are English-dominant in terms of oral skills, but tested into the bilingual program. (This group is discussed in the following section.)

Students who entered the program as recent arrivals from their native countries have varied educational backgrounds. Those who were schooled in Puerto Rico have generally more total years of education and more consistent preparation; however, the tendency of their families to travel back and forth between Puerto Rico and the continental U.S. may have disrupted their academic progress. Students from the Dominican Republic tend to be adequately prepared if they were educated in parochial or private schools, and poorly prepared if they were not. There has been an increase, in the last several years, of students from Ecuador and Honduras. Those from Ecuador have tended to come with strong academic backgrounds; those from Honduras may be weaker in basic

skills, particularly if they have come from the United Fruit Company area. A significant proportion of participants, especially those from rural areas, have not had a great deal of formal training, and are not oriented toward achievement in academic work.

The range of students' economic situations is more narrow. The family assistant, who has visited hundreds of homes, feels that poverty and its devastating impact on health, nutrition, and family life, affect most program students.

Male students constituted 52.5 percent, and females 47.5 percent, of the population. In the ninth and twelfth grades, males outnumbered females by two to one.

At each grade level, more than two thirds of program students were overage for that grade. Nearly 40 percent of ninth graders were 17 or 18 years old in spring, 1981; 12 percent of tenth graders, 21 percent of eleventh graders, and 67 percent of twelfth graders were 19 or 20 years old.

During spring, 1981, the program accepted between 40 and 50 students who were programmed for the following fall in the bilingual program. In general, there have been fewer incoming students each year; this trend corresponds with the overall decline in the school's enrollment, and results from the fact that families are not moving into or long remaining in the neighborhood, as well as from the open-zone system, which allows students to opt for any school in the borough.

The grade advisor, by counting program cards which he had pulled during the year, calculated that at least 49 program students had been discharged during the school year. (The total number may in fact be

greater.) He stated that they had left school for the reasons indicated on the following table:

Table 4. Students exiting program, 1980-81.

Long-term absentees, discharged	17
Returned to native country	11
Discharged to alternate programs	0
Transferred to another school	15
Earned equivalency diploma	1
Discharged due to overage	9
Marriage or employment	4
Other	1

ENGLISH-DOMINANT PARTICIPANTS

While all program students come from homes in which Spanish is spoken, a small number are dominant--at least in terms of oral skills--in English. These are students who scored below the twenty-first percentile on the LAB in English and in Spanish; because they scored higher in Spanish than in English (for example, scoring in the ninth percentile in English and the eleventh in Spanish), they tested into the bilingual program. The guidance counselor noted that because written Spanish may be easier for students to decode, the LAB may not accurately reflect language dominance. For the most part, these students are functionally illiterate in either language.

Different members of the bilingual staff offered varying estimates as to the number of students falling in this category. In any case, the

group represents a minority of program students. Furthermore, while some 40 to 50 English-dominant students may enroll in the program at the beginning of the school year, many are soon mainstreamed by parental option. By the end of the year, few English-dominant students may remain; but because the program has tried to address the needs of this group, which is often ignored throughout the system, this report will describe both the characteristics of these students and, in the next chapter, the approach taken to their instruction.

English-dominant program students are often U.S.-born students of Puerto Rican origin. The characteristics of this small group are best considered in a larger context. Students who were born in the continental United States have not necessarily been raised or schooled entirely within its borders. Most travel back and forth between the native country and the U.S. with parents or relatives. A survey of the 390 high school students citywide who were born in the continental U.S. and are enrolled in bilingual programs provided the following data: only one-third of these students have received all of their schooling in the U.S. Another third have had four or fewer years of education in the U.S. Of the total number, many are English-dominant, at least in terms of oral skills and usage. Half reported speaking English with their friends most or all of the time. A quarter of the total number speak English at home most or all of the time; another quarter speak both English and Spanish at home.

The program coordinator stated that the program's English-dominant students may have come through the New York City school system, but cannot read a word in either language, or even identify letters of the al-

phabet. The native language arts (N.L.A.) curriculum devised by the program for this group begins with the following performance objectives: to learn to say the names of the letters of the alphabet; to learn to write all the letters correctly and know how to join them to form words; to learn the sounds of all vowels, consonants, and dipthongs.

The principal/project director taught these students in N.L.A. classes before becoming an administrator. She remarked that it is often difficult to judge whether such students would benefit more from a bilingual program or from mainstream instruction. Most often, they know Spanish and understand readily; their parents or other family members most often speak to them in Spanish at least part of the time. But they are typically hesitant to speak Spanish in the classroom. They may feel prepared to discuss everyday practical matters, but lack the vocabulary necessary to deal with academic questions. They can talk about meals or sports, for example, but do not feel capable of discussing cell biology in Spanish. Most often, they prefer not to admit to speaking Spanish at all, and may deny having language skills.

The principal has concluded that these students are, for the most part, better off in the bilingual program than elsewhere; they profit from the more intensive and individualized attention they receive as program participants. English-dominant students who are not meeting the program's academic standards would probably not succeed in mainstream classes either.

IV. INSTRUCTIONAL COMPONENT

ENTRY, PROGRAMMING, AND TRANSITION

Entry Criteria

The project's grant proposal and the evaluation report documenting its first year state that the program was designed to serve 300 students --half the school's population of Spanish-speaking LEP students. Data supplied by the program for 1980-81 suggest that the program served 319 of the school's 590 LEP students. The principal stated that no E.S.L. or bilingual instruction is available to students outside of the bilingual program; it would therefore appear that some 300 students who qualify for bilingual services are enrolled in the school's mainstream program. The bilingual guidance counselor and grade advisor indicated that the students not served included those opted out by their parents; chose who scored below the twenty-first percentile on the English LAB, but lower on the Spanish LAB; students who returned to their native countries; students who were truants; dropouts; students who were discharged to seek work (or for some other reason); and students who were tested out of the program. The staff members felt that all bilingual students who required services were enrolled in the program. Their understanding was that students were admitted to the program if they were referred to the bilingual program by a feeder school or if they scored below the twenty-first percentile on the English LAB and higher on the Spanish than on the English LAB.

Students entering the bilingual program from junior high schools in the past years have sometimes opted out of the program immediately. These were students who, failing to attain a minimum level of English

reading, would have been held over in the junior high unless they opted for entry into a high school's bilingual program. These students often used this policy as a means of getting out of the junior high and into high school, and then signed out of the program on the first day of school in September. That policy has now been changed: students who enter the bilingual program under that rule are held for a term, even if they test out immediately.

Programming

The programming process takes into account the student's individual needs. At the beginning of the term, or at the point of enrollment during the year, incoming students are evaluated one by one. The records of those students arriving from outside the country are retrieved and reviewed. Students are tested in English by the grade advisor, and in math and Spanish by program teachers. A comprehensive evaluation form is filled out for each student; on the basis of the evaluation form, the grade advisor arrives at a program for the student. The grade advisor follows each student, keeping track of credits and graduation requirements. In addition, he maintains for eleventh- and twelfth-grade students individual folders in which vocational or college planning materials are assembled. Information on finances, applications, and recommendations is collected on a college information sheet.

Course and credit requirements guide course selection for ninth and tenth graders. All students take the maximum number of courses possible, including gym, music, and art. Upper-termers may also elect to take urban ecology, accounting, or other electives.

Programming is flexible to the extent that students may be referred to other classes if a placement has been found to be inappropriate. For example, if a content-area teacher finds that a student is not absorbing material in either language, a referral may be made to the native language arts class which teaches fundamental skills in English and Spanish.

Transition

A student may leave the program and enroll in mainstream courses on the basis of testing, teacher and staff recommendation, or parental option. Partial transition is also possible on the basis of the same criteria.

The LAB is administered at Morris twice each year. Students who wish to be tested, or whose language grades are incongruously high or low, may take the LAB; if they score above the twenty-first percentile in English, they may leave the program. During the 1980-81 school year, 22 students who took the LAB scored above the twenty-first percentile. Seven chose to remain in the program for at least one term; 15 were given mainstream programs for the following September.

Parents may request that their children be mainstreamed or partially mainstreamed. The request more often than not originates with a student who manages day-to-day with colloquial English, speaks Spanish at home, and is comfortable in neither language. These students may complain to parents that they cannot grasp the Spanish in bilingual content-area classes. If the program staff feels that this student would do no better in the mainstream and in the meantime is profiting from the program's individualized approach and from simultaneous instruction in

both languages, the parents may be called in for a conference. The staff has sometimes had occasion to explain that the student has skills in Spanish but, for emotional or social reasons, is feigning ignorance. On other occasions, the staff may agree that full or partial mainstreaming is the appropriate step.

Students who opt out of the program before testing out are, according to a policy introduced in 1980-81, retained in a bilingual official class for one year, or until they score above the twenty-first percentile on the LAB. Students who do test out and are fully mainstreamed are assigned to a new grade advisor. However, the bilingual program's grade advisor follows their progress to provide continuity and to avoid the misunderstandings which have sometimes occurred. For example, college-bound program students have occasionally been pushed into the general track by mainstream faculty who may have assumed that bilingual students cannot do college-bound work.

ENGLISH AS A SECOND LANGUAGE

Working with paraprofessionals, the program's two Title VII and three Title I E.S.L. teachers offered an array of courses unusual for its breadth and variety. The program provided six levels of basic E.S.L. (each a double period of instruction) to 126 students. In addition, 200 students enrolled in one of seven courses designed to reinforce or upgrade basic skills, particularly writing skills, and 170 students registered for one of eight transitional courses, of which several were geared to students' special interests. Students enrolled in E.S.L. 1 through 6 took three periods of English-language instruction per day, in classes which were generally composed of fewer than 20 students; students in the

transitional phase took two periods of English each day. Table 5 outlines the English-language instructional offerings. Several of those offerings are described below.

A number of courses, designated S.L.W., S.L.C.R., and E.L.S.L.C.R., aim at providing basic reading and writing skills in English to students who are functionally illiterate in either language. They focus on practical skills--filling out job applications, reading a driver's manual, reading food labels.

Courses, designated E.L.S., and R.C.T. (Rd/W) reinforce reading and writing skills. E.L.S. students are given workbooks and proceed at their own pace. The two R.C.T. courses are designed to upgrade reading and writing skills to Regents competency level.

A course designated Adv. A.L.C.R. prepares students to take the college entrance exam, write research papers, and improve reading skills in terms of comprehension and speed. Students at the transitional stage may also take elective classes which supplement the more conventional E.S.L. offerings. Designed by individual teachers on the basis of their own special skills and experience, these electives develop English skills by involving students in introducing basic concepts in law, aviation, first aid, and the theater. The first aid course, for example, is taught by a man who is affiliated with a volunteer ambulance corps, and includes both program and mainstream students; it presents in English basic lifesaving techniques and related topics, such as emergency childbirth procedures. Another teacher, with more than twenty years of classroom experience, teaches a class entitled theater as a second language, which encourages the use of English through acting. Working with a paraprofessional, he

conducts the class entirely in English. He also teaches modern American literature and a class in literature analysis. The teachers who devised and instructed these courses commented that while the electives cannot replace basic E.S.L. curricula, ("there is also a lot to be said for drill") they motivate students to master unfamiliar vocabulary, and in this way impart both skill and confidence.

Table 5. English language instruction.

COURSE	NO. OF CLASSES	AV. CLASS REGISTER	CLASSES/ WEEK	DESCRIPTION
E.S.L. 1	1	15	10	Intro. to Eng. for non-natives
E.S.L. 2	1	19	10	Basic grammar
E.S.L. 3	2	19	10	Comparative, superlatives, adjectives
E.S.L. 4	2	13	10	Present/past perfect tenses
E.S.L. 5	1	18	10	Adverbs, perf. tenses, etc; vocabulary expansion
E.S.L. 6	1	10	10	Writing mechanics
Reading 1	1	16	5	Beginning reading for non-natives
Reading 2	1	10	5	Beginning reading/writing skills
Reading 3	1	27	5	Reading/writing skills; pronunciation
Reading 4	2	17	5	Reading comprehension, expansion of vocabulary
Reading 5	1	17	5	Corequisite 3rd year E.S.L.; short stories
E.L.S.L.C.R.	1	25	5	Reading and writing for the barely literate
S.L.C.R.	2	24	5	Basic reading and writing skills
Ad. S.L.C.R.	1	12	5	Reinforce reading and writing skills
R.C.T. (Rd)	2	12	5	Upgrade reading skills to Regents competency level
R.C.T. (W)	2	17	5	Upgrade writing skills to Regents competency level

Table 5. English-language instruction (cont.).

COURSE	NO. OF CLASSES	AV. CLASS REGISTER	CLASSES/ WEEK	DESCRIPTION
S.L.W.	1	21	5	Basic reading and writing skills for functionally illiterate
E.L.S.	2	16	5	E.S.L. students deficient in writing skills
E.T.G.	2	25	5	Adv. E.S.L.: short story, poetry, analysis of written paragraph
E.T.A.	1	20	5	Transitional English
M.A.L.S.	1	15	5	Modern American literature
T.H.S.L.	1	13	5	Theater as a second language
S.E.	1	15	5	Senior English
AVE	1	23	5	Aviation English
First Aid	1	25	5	English development and instruction leading to first aid certificate
L.E.Y.	1	9	5	Law-related English for Youth

E.S.L. teachers interviewed by the evaluator stated that students range tremendously in skills. "I read to them a lot because they do not have an opportunity to hear educated English," one teacher remarked. He added that while they often have a grasp of colloquial English, their reading and writing tend to be very poor. He mentioned one student in particular who, at age 15, has been in the U.S. for eight years and cannot read a simple English text. An E.S.L. teacher noted that there is not enough articulation between E.S.L. and content-area instruction. This teacher added: "This may be a function of the traditional division between subjects. Also, kids squirm about our tying too many threads; they get too uncomfortable because they feel that we have more control and they don't like it." Another comment touched on the lack of a consistent methodology in the E.S.L. area: "We had seven teachers teaching differently; the kids were confused. And this is only in the E.S.L. area." In response, a committee of teachers has been set up by the new assistant principal to rewrite curricula as needed, to integrate levels of E.S.L. instruction to be consistent with the objectives of the CREST test, and to recycle materials periodically on increasing levels of difficulty.

NATIVE LANGUAGE ARTS

Native language arts in the Morris High School bilingual program refers to the course of instruction designed for those students who are English-dominant but come from Spanish-speaking homes, and who function minimally in either language. The students in this group, which numbered four in 1980-81, took two periods of N.L.A. daily, in addition to one period of Spanish and three content-area courses.

Theoretically, two courses respond to the special needs of these students: N.L.A., which teaches survival skills in Spanish, and a course designated N.L.A. reading, which teaches the same skills in English. Students are taught to communicate such basic information as telephone numbers, days of the week, addresses, etc. They have a range of oral skills in both languages, and little or no familiarity with reading or writing. Most do not know the alphabet.

The program's approach to working with these students has been to teach the fundaments of Spanish and English in separate classes. This has been found more effective than concentration on only one language; the separation of instruction into two courses tends to discourage the code-switching ("Spanglish") to which these students are prone.

Students who pass the N.L.A. courses are, for the most part, not prepared to enter the first level of E.S.L. They may not have mastered the alphabet, for example. These students are placed in the course designated S.L.W., which uses such materials as the Milliken series (Basic Buying Skills, Developing Alphabetizing Skills, Money Management) and the P.A.L. Practical Living series.

Information on the program's approach to language instruction for this special group was difficult to elicit from the program staff. There seemed to be a good deal of confusion about exactly what was taught in the N.L.A. sequence, and in what language. One reason for this perplexity appears to be that while the above description characterizes the program's theoretical approach, the N.L.A. teacher, in practice, tries whatever seems to work. The program coordinator concluded that during 1980-81, N.L.A. instruction was primarily in English; a cur-

riculum exists for a Spanish-intensive N.L.A. course, but it was not used.

SPANISH LANGUAGE INSTRUCTION

The table below indicates the bilingual program's Spanish-language offerings. The program offers eight levels of Spanish, ranking from Spanish 2N (elementary Spanish for the native speaker) through Spanish 7/8 (literature, culture, history) and advanced placement Spanish (primarily literature). There were 36 students enrolled in the most elementary level, and 15 in the advanced placement course.

Spanish teachers were required to include a cultural component in every lesson; in this way, native culture was integrated into the Spanish language curriculum.

Table 6. Spanish-language instruction.

COURSE	NO. CLASSES	AV. REGISTER	DESCRIPTION
Spanish 2N	2	18	Elementary Spanish for the native speaker
Spanish 3N	4	20	Intermediate level reading, writing, oral skills
Spanish 4N	3	28	Geography, history; reading, writing, oral skills
Spanish 5N	2	25	Reinforce skills; historical traditions
Spanish 6N	3	23	Preparation for three-year Regent exam
Spanish 7N	2	30	History, culture, literature of Spain and Latin America
Spanish 8N	2	18	Representative literary works of Spain and L.A., 12th century to the present
Advanced placement	1	15	Representative literary works 18th, 19th, 20th centuries

CONTENT-AREA INSTRUCTION

Overview

The principal stated that the curricula in bilingual content-area courses paralleled that taught in the mainstream. Students are alerted, when they enroll in bilingual classes, that they will be expected to take any citywide tests appropriate to their grade level and academic program.

Students are also informed that every content-area lesson, including written assignments or tests, will require some work in English. This reflects the departmental language policy, which the assistant principal summarized in one of his observation reports:

> It is the school policy that every bilingual class be conducted both in Spanish and in English. However, the intercalation of English and Spanish throughout the lesson runs the chance of becoming confusing and can lead to Spanglish. We agreed that to avoid any possible impediment to the students' language development, English will mostly be limited to the beginning part of the lesson and will include the do-now, the review, and the presentation of vocabulary. The main body of the lesson will follow in Spanish. The final summary will be given in Spanish and if time allows, in English also.

The minority of program students who are English-dominant in terms of oral usage have sometimes had difficulty grasping written material in Spanish. In these cases, teachers have sometimes provided parallel materials in English. If, as often happens, those students fare no better with English texts, the grade advisor is consulted, and the parents may be called to discuss the best approach to the student's content-area instruction.

Table 7 outlines the program's content-area offerings during spring 1981.

Table 7. Content-area instruction (spring term).

COURSE	NO. OF CLASSES	AV. CLASS REGISTER	PERCENT CLASS TIME IN SP./ENG.	PERCENT MATERIALS IN SPANISH
Eastern civ. 2	5	29	85/15	85
Western civ. 1	2	15	85/15	85
Economics	1	27	75/25	75
American hist. 1	1	16	75/25	75
American hist. 2	1	24	60/40	60
Science 2	5	21	85/15	85
Biology 1	1	16	75/25	75
Biology 2	2	24	75/25	75
Gen. math 1	3	20	85/15	85
Gen. math 2	2	16	85/15	85
SMILE	1	15	85/15	85
Algebra 1	2	28	75/25	75
Algebra 2	1	27	75/25	75
Algebra 3	1	29	60/40	60
Geometry 1	1	20	60/40	60
Reg. comp. math (no credit)	1	17	20/80	20

- Approximately 75 percent of program students were enrolled in bilingual social studies courses during the spring term.
- Approximately 50 percent of program students were enrolled in bilingual science courses.
- Approximately 80 percent of program students were enrolled in bilingual math courses.

Social Studies

As students progress from ninth through the eleventh or twelfth grade, they take bilingual English courses which require progressively more work in English. The ninth-grade course, Eastern civilization, covers the geography and cultures of Africa and Asia, including the Soviet Union, and had the largest enrollment.

Science

The program offered general science and biology in 1980-81. A bilingual chemistry curriculum has been developed as well, but the program's staff did not include anyone qualified to give instruction in this area. After speaking with various teachers and students, the evaluator concluded that bilingual staff and participants do not have access to science laboratory facilities. Nevertheless, the bilingual science teacher was positive about the program, commenting that in its bilingual courses, students "learn advanced academic material which they would otherwise be unable to absorb or understand."

Mathematics

Four out of five bilingual students were enrolled in math classes in the spring term. A total of eight math courses were offered, including a no-credit R.C.T. math course for those students who had failed the exam. Part of each math lesson in every course was presented in English and new vocabulary was introduced in two languages. The proportion of English-language usage ranged from 15 percent to 40 percent, except in the R.C.T. class which was conducted primarily in English. Students tend to ask and answer questions in Spanish, however.

The bilingual math teacher remarked that students' abilities and levels of preparedness are particularly diverse in this area. He added that the presence of a paraprofessional in the classroom would allow the more individualized instruction which this variation demands. "I would dream of it," he said.

MAINSTREAM COURSES

All program students took physical education in the autumn and spring terms. Students also took other mainstream courses, as indicated on the following table.

Table 8. Mainstream classes in which program students enrolled.

COURSE	NO. OF STUDENTS	CRITERION FOR SELECTION
Art	39	Required
Music	39	Required
Hygiene	22	Required
Phys. Ed.	319	Required
Typewriting	48	Elective

V. NON-INSTRUCTIONAL COMPONENT

SUPPORTIVE SERVICES

Overview

The principal/project director stressed that support services are crucial to program function. She noted that in terms of group and individualized services, bilingual students certainly receive more attention than those students who are in the general track of the mainstream, and probably more than any other students in the school other than the college-bound group. This is due to the high ratio of adults giving supportive services (professionals, paraprofessionals, and aides) to students, to the high degree of coordination among the staff, and in particular to the services of the Title VII-funded family assistant.

The bilingual guidance counselor, grade advisor, and family assistant provide ongoing supportive services to program students; the three work closely together, and hold morning conferences each day to share information about students' problems of progress, about the family assistant's visits to homes, or about issues raised by other members of the bilingual staff.

A psychologist and two social workers back up the bilingual staff members. The psychologist, who is bilingual in Spanish and English, spends one day per week at the school. The social workers spend five and three days per week at the school respectively; since neither is bilingual, the guidance counselor serves as interpreter when necessary.

A drug counselor is also available at the school. No bilingual drug counselor is available, but the guidance counselor is available to interpret. The guidance counselor stated that there have been few drug-

related problems among students, and there have been no occasions this year to call on the services of the drug counselor.

Individual Counseling

Teachers are encouraged to make referrals to the guidance counselor or grade advisor; since students are often reluctant to ask directly for assistance, often the only way guidance can get to students is through teachers. Unless confidential material is discussed, the counselor reports back to the teacher.

The guidance counselor works with students to resolve personal problems, which range from financial problems within the family, conflict with parents or step-parents, health problems, etc. When the counselor registers each student individually, the department's open-door policy is explained and emphasized.

The grade advisor works with eleventh- and twelfth-grade students to work toward college or vocational plans, and to assist students and parents with financial aid applications.

The guidance counselor focuses particularly on the needs of new participants, especially ninth-graders from intermediate or junior high schools who have often had the most difficulties. The guidance counselor interviews ninth-graders individually or in groups of two to three students twice each year, to discuss credits and promotion possibilities, and other academic issues.

Group Guidance

The guidance counselor and grade advisor run groups, made up of ten to twelve students, to deal with adjustment problems. These groups often take time to get started at the beginning of a term; they take shape

during the orientation process, when students are pulled out from physical education classes for orientation.

The guidance counselor ran groups for newcomers to the program. These groups were designed to help students develop self-awareness in relation to school situations, and to develop social skills. The guidance counselor described one of the group's warm-up activities: the guidance counselor would intentionally interrupt dialogue with "conversation stoppers"; teenagers don't listen, she stated, explaining the point of the exercise. Soon, as students got to know each other better, they wanted to take the guidance counselor's part, to do the "conversation stopping."

During the year, the grade advisor refers students to the guidance counselor for inclusion in such groups, and assists in programming participants to allow for a free period. Students are referred if they are having problems with study habits, testing, or general attitude. The grade advisor runs a weekly career awareness group for eleventh graders.

Referrals

The guidance counselor works with the school's two social workers to make special referrals or placements. Decisions about such referrals are sometimes difficult: for example, a report to the Bureau of Child Welfare may lose a student's trust if a confidence is broken; this is done only when the student's well-being is at issue. This year, the guidance counselor was consulted when the school nurse found that a male student had suffered physical abuse from his father. The Bureau of Child Welfare was notified, and sent a skillful social worker. The stu-

dent eventually dropped out of school, but the guidance counselor thought that the father's discipline was not necessarily the reason.

In another instance, a social worker was asked to assist a student who was diabetic. The social worker located a group of adolescent diabetics. The referral was not successful or sufficient; the student left school and could not be located.

Referrals for testing are made when teachers or parents have reason to believe that severe problems are hampering students. Such referrals may be prompted by behavior problems, or by consistent non-achievement by students who appear to be working with effort. Such testing is typically a slow process. This year, for the first time, testing was done in the school by a psychologist. While this has speeded up the process, it is still not as fast as administrators had hoped. It still takes at least a semester to assess and place a student. The principal stated that in her experience, it has been particularly frustrating to work with students who have been allowed to go through the system with learning disabilities when the Slosson Test, which may be administered in ten minutes, identifies severe problems immediately.

Placements have been made to Taft and South Bronx High Schools, which have bilingual special services departments, and to the Committee on the Handicapped. If parents reject the recommended placement, as happens not infrequently, the student remains in the bilingual program.

Home Visits

During 1980-81, the family assistant visited the home of every bilingual student. The role of the family assistant is discussed in the section on parental involvement.

CURRICULUM DEVELOPMENT

Overview

Responsibility for curriculum development rests with the assistant principal who heads the department. The resource specialist advises the assistant principal as to the program's curriculum needs, and keeps him up-to-date on teachers' needs and on available resources.

The resource specialist also coordinates materials, lets teachers know how to use them, and gives demonstration lessons. His assessment was that except for E.S.L., curriculum and materials are adequate. Teachers interviewed by the evaluators stated that audio-visual materials, are either insufficient or not taken advantage of.

Funds for curriculum development are provided by Title VII, which provided an allocation for texts and audio-visual materials, and Title I, which provided monies for materials.

The development of curriculum and materials conforms with the departmental language policy; English-language materials are introduced in every course. The proportion of English-language materials increases with the student's grade level. Teacher-developed tests in content-area subjects must include at least one part in English.

Language Arts

In December, 1980 a fire destroyed nearly the program's entire inventory of English as a second language materials. During the spring term, the resource teacher was ordering materials, and working toward rebuilding the inventory of instructional materials.

Teachers working in E.S.L. and native language arts stated that they have appropriate textbooks, but not "technology."

One teacher said that cassettes would be a great help, and added: "I understand that we have a [language] laboratory somewhere, but I have never seen it. It is locked up somewhere." According to the assistant principal of the foreign language, E.S.L., and bilingual department, a language laboratory does exist but is not presently in use due to a lack of funds needed to repair and refurbish the facilities. Teachers do have available and on call cassette recorders and language tapes, newly acquired individual overhead projectors with permanent classroom screens, teacher- and commercially-prepared transparencies, flash cards, film strips, projectors, and records to aid in language instruction.

Mathematics

The resource specialist said that the program uses Spanish-language math texts, but that the superior texts are in English. Because the Algebra Regents exam is given in English, and includes word problems, teachers are encouraged to use English texts for such problems. While tenth and eleventh graders generally have sufficient English-language skills for word problems, teachers have sometimes translated these problems into Spanish.

A book has been ordered to meet the new requirements mandated by the Board of Education. Next year, three levels of general math, designated A, B, and C, will be taught. The C-level course, which is equivalent to the current SMILE course, will use the English-language text Preliminary Mathematics.

Social Studies

Ninth-grade social studies. The ninth-grade social studies courses, Eastern Civilization I and II, use Spanish-language Barrons texts. Supplementary materials are available in English; English translations of some

of the material is available for use by English-dominant students. Materials have been ordered to help develop map skills.

Tenth-grade social studies. While Western Civilization and economics texts are in Spanish, there is increased use of English in written and oral work. A new text has been purchased for western civilization, since the text in use was found to be tedious.

Eleventh-grade social studies. American studies texts are in English. Two textbooks are available for American studies: one is more sophisticated and linguistically difficult than the other. The teacher chooses the most appropriate text at the beginning of the term.

Science

For the general science courses, the basic text is in Spanish. A supplementary text in English, which has excellent drawings, was ordered during the spring semester.

Elective Courses

A distinctive feature of the Betterment through Bilingualism program is the possibilities for curriculum development which it offers to classroom teachers. Teachers are welcome to propose elective courses to the assistant principal. If the initial idea is approved, the teacher prepares an outline of the curriculum, speaks with the resource specialist about materials. The resource teacher then consults with bilingual publication sources to acquire appropriate materials, and will visit official classes to promote the course. The lead time needed to introduce such an elective is from one semester to a year. Several E.S.L. electives were offered in 1980-81, including classes designed to teach

English language skills through the study of first aid techniques, aviation, law, and theater. In designing these curricula, teachers drew on their personal interests and experience in pursuing the program's overall goals.

Two elective courses have been proposed and developed for the 1981-82 school year. These include pre-Columbian history and computer math. By May, 1981, 13 students had expressed interest in computer math; 15 are needed to implement the course.

STAFF DEVELOPMENT

Orientation and Supervision

The assistant principal held individual pre-service sessions with new teachers as needed, to provide orientation to the program's curriculum, materials, and methodological approach. He also held monthly departmental meetings with the 22 teachers who work with bilingual students to discuss implementation of the program's goals and objectives, and to review instructional methodology.

The assistant principal also conducted classroom observation. The evaluator reviewed teacher observation reports from which the teachers' names had been deleted. The report reviewed in some detail the lesson which had been observed, listed recommendations, and summarized the post-observation conference. In almost every case, the report made practical suggestions for exploiting available resources, reducing teacher domination, and implementing the departmental language policy. After observing a mathematics class, the assistant principal urged a "hands-on" approach to help students grasp concepts that might otherwise

remain abstractions. Recommendations about the use of English and Spanish in the classroom were quite specific, pinpointing parts of the lesson that should be taught in English or Spanish. Teachers were encouraged to require that students use English for routine matters (role call, for example), and to model the pronunciation of English vocabulary. The use of Spanish and English in a single sentence was criticized.

In addition, teachers were urged to formulate performance objectives in making lesson plans, that is, to indicate in specific terms what students would be able to do by the end of the period.

On-Site Activities

The Title VII resource specialist prepared demonstration lessons; during the spring term, he offered a demonstration lesson in social studies, demonstrating the use of published materials with an overhead projector. He provided support in an ongoing, informal manner as well.

In addition, a Title I teacher trainer working with an umbrella program visited the program once a month to provide staff training.

Off-Site Conferences and Workshops

The principal and assistant principal attended the Foreign Language Teachers' Conference at Park West High School, and the grade advisor and bilingual counselor went to the Bilingual Career Conference at Columbia University's Teachers' College. Program teachers attended the following conferences and symposia during the 1980-81 school year:

Title I Conference for Teachers
C.P.R. Instructors' Conference
New Jersey First Aid Council Conference
Aerospace Educational Congress
Title I Reading Program
New Teachers' Workshop
Open Classroom Workshop
Biennial Flight Review
How to Write Books for Children
How to Obtain Materials through the Telephone Company
Federal Aviation Administration Safety Seminars
Emergency Medical Technician Courses

University Courses

Ten program teachers were working toward M.A. degrees in fields related to their teaching assignments by attending courses, twice each week, at the following institutions: the City University of New York, Columbia Teachers' College, St. John's University, Fordham, Mercy College, Pace, and New York University. The bilingual secretary and four paraprofessionals were also attending university courses.

PARENTAL INVOLVEMENT

The parents' advisory committee consists of ten parents; of these, three are highly involved in the program. No students or teachers take part in the committee.

Bilingual parents have also been involved in schoolwide activities. The president of the Parent-Teacher Association is the mother of a bilingual student; the first and second vice presidents of the P.T.A. are parents of bilingual students who have been mainstreamed.

While parents have generally expressed interest in the program, many are not sure how to act on their interest. Many are prohibited from attending meetings by work or child care responsibilities. The program has tried alternating afternoon and evening meetings, but in both cases, participation has been low. The school has had no evening E.S.L. classes for parents since the mid-seventies, and has no other program geared to parents.

Parents have been involved in some cultural activities; they prepare food, for example, for the Puerto Rican day festival in November.

But in general, parents' contact with the program has been primarily through phone calls and visits from the family assistant.

The family assistant visited 319 homes during the school year. She received from one to ten referrals from teachers each day, identifying such problems as truancy, disruptive behavior, or consistent failure. In response to these referrals, she planned a weekly schedule which usually consisted of ten visits per week: four visits a day for two days, and one visit a day for two days. She discussed personal, academic, and health problems with students and their families, made referrals to social workers or to local agencies, and at times accompanied participants or family members to appointments at these agencies or at health facilities. She maintained a record of referrals to the social service delivery system, and followed up with the families.

The family assistant gave the evaluator the following summary of her views and activities:

> A visit to a student's home is important when a student is having a problem at school or when he faces a difficult family or personal problem.
>
> Three of the major problems our students face include; absenteeism, bad conduct, academic failure. When the school establishes a relationship with the student's home, it is usually true that his conduct improves--particularly when one visits the student's home.
>
> One reason for the drop-out problem is the student's poverty. Other major sources of problems include family crises, lack of English fluency, lack of clothes, and many more.
>
> It has often been necessary for me to accompany a student to different community agencies, hospitals, and even another home after he has been thrown out by his parents or runs away from home of his own accord.

In her final monthly report for the year she included the following information:

Table 9. Summary of the family assistant's activities.

	May	Year total
Home visits made to date	-	319
Home visits made last period	38	-
Number of live contacts	17	-
Number of family members responding to home visits:		
school interview	19	99
phone	5	40
Follow-up activities within school (number of contacts)	40	299
Students taken to outside agencies	1	-

AFFECTIVE DOMAIN

Information provided by the program coordinator on students' academic standing, attendance, and participation in extracurricular activities suggests a positive attitude toward their schooling and their futures.

Academic Standing

Of the top ten Morris graduates in June, 1980, half were bilingual students. The salutatorian was a bilingual student. In the spring term of 1980-81, eleven bilingual students were inducted into Arista, the honor society.

Attendance

The principal noted that throughout the school, attendance is higher in special programs: the bilingual program, the college bound program, the medical lab program, and CAP. The bilingual program stresses attendance at every faculty or guidance program, and sets clear standards for students in the student manual and the contract signed by each student at the beginning of the year. The contract states that fifteen or more absences in a term may result in automatic failure of a course. Positive reinforcement, in the form of letters of commendation and inclusion on the honor roll, is given to students who attend regularly.

The table below contains attendance data for 1980-81, provided by the program coordinator:

Table 10. Attendance by program and mainstream students.

GRADE	9	10	11	12	OVERALL
% program attendance	77	85	88	96	86
% mainstream attendance	59	82	87	93	80

- For both program and mainstream students, attendance increased with grade level.
- The greatest differential between program and mainstream students was among ninth graders.

The principal indicated that attendance in the school as a whole has risen by over ten percent in the last two years.

The program coordinator also furnished data on the drop-out rate for program mainstream students. While one out of five (20.8 percent) mainstream students dropped out of school during 1980-81, the figures for the bilingual program was one out of eleven (8.7 percent).

The program staff attributed the high attendance figures and the relatively low number of discipline problems to the availability of staff members to students and teachers. A parent or student may approach any of six staff members: the assistant principal, program coordinator, resource teacher, guidance counselor, grade advisor, or family assistant.

Extracurricular Activities

Students took part in an after-school occupational skills program, as well as in sports (basketball, baseball), peer tutoring, and theatrical productions.

In addition, the program sponsored a number of special events and planned several trips. The principal mentioned that visits to other parts of the city were particularly valuable to program students, many of whom rarely venture out of the neighborhood, and some of whom had never been on a subway.

More than 80 percent of program students took part in one or more of the activities listed below:

Cultural trips

Boston Flamenco Ballet 11/18/80 (155 students)

Kennedy Airport 12/1/80 (45 E.S.L. students)

Repertorio Espanol 5/12/81 (110 students)

Kennedy Airport 3/31/81 (43 E.S.L. students)

Teterboro Airport/Teaneck Emergency Medical Service 5/15/81 (42 students)

Federal Reserve Bank 6/3/81 (40 social studies students)

Hispanic Museum 4/14/81 (30 students)

Special Events

Puerto Rican Discovery Day 11/30/80 (300 students participating in show, food festival, and dance)

Dominican Republic Day 2/20/81 (200 students participating in show, dance, and comedy)

Lecture on Peruvian Culture 5/13/81 (50 students)

Students' Voices

One of the two evaluators who visited Morris High School's bilingual program interviewed a number of students. The following pages offer background information on these students, and document the conversations.

Background information. M. has been enrolled in the program for over a year. She came to the United States and was told of the program at the school and enrolled in it. The interview was conducted in Spanish and English. She was obviously more comfortable in Spanish. She completed eight years of public schooling in her country of origin. This is the only school and bilingual educational program that she has been enrolled in since emigrating to the U.S. She travels over an hour to reach the school, but she shared with the interviewer that she did not mind the distance because she felt the program was worth it.

Questions	Responses
What do you feel are the most positive aspects of the educational program?	The teachers. They can speak to you in your language. They are dedicated and respect you.
Do you work after school?	No.
Are your parents involved in the program?	What do you mean? --Yes, well, they come to school if they are invited. But they rarely can come to meetings.
What are some of the aspects of the program that you like the best?	I like the bilingual program.
What would you miss most about the program if it were terminated?	The good feeling you have with the other students and teachers--it is not the same in the rest of the school.

Background information. F. was in the bilingual program for two years. He is now in the college-bound program. He was one of those students who truly excelled in the bilingual instructional setting. He came to the United States after completing eight years of public schooling in Ecuador. He enrolled at Morris upon arriving in the U.S., and entered the bilingual program immediately.

Questions	Responses
What was the most positive aspect of your educational experience in the bilingual program.	The English development.
What was it due to?	The E.S.L. is good because you speak alot of English.
Do you think you would have been ready for college--as you now seem to be--if all your courses had been taught in English?	No--because I knew no English. (Spontaneously:) I think that in a program like this you can learn English in two years.

How many years were you in the bilingual program?	Two years.
Were you in the program too long?	No. After two semesters I could understand but not speak the language well enough. (Spontaneously:) I think students should be asked to write more. When I was in E.S.L. we were asked to write sentences. The focus on structure bored me in E.S.L.

Background information. W. and R. had completed an examination in their E.S.L. class and agreed to meet with the interviewer for a little while before their next class. Both students are participants in the program in bilingual education. They have both been in the program over a year.

Questions	Responses
What are some of the services offered by the bilingual program that you feel are valuable?	W.: I have been asked to join Arista. R.: There are visits to colleges. There are voluntary tutoring programs after school.
What aspect of the bilingual program did you find most favorable?	W.: The teachers' positive attitudes towards students, individually and in groups. They try to find each student's problems. R.: There are alot of things, I don't know.
If a friend came to this country who spoke no English, would you recommend this program.	W.: Yes, because teachers are very dedicated to students. R.: Yes, because bilingual teachers can help--understand.

Background information. The evaluator asked the program director to arrange for a group of students to meet with her between classes. Though students were taking examinations, it was possible to arrange for five students to meet with the evaluator in a group. The following report gives the spontaneous responses of individual students to the questions posed to the group. All students were not asked to answer each question in an effort to make the exchange as extemporaneous and natural as possible. The interview was conducted in Spanish and answers were translated by the interviewer.

Questions	Responses
Compared to other students in the school, how do you feel as a participant in the program? (pause) Do you feel isolated?	-The fact that we are isolated is good. We get special help to meet our needs. -One is constantly associated with other students. -Americans see us in the bilingual program as inferior. There is friction between us. -We do not lose anything by their perceiving that. -It is envy.
Is there articulation between your parents and the bilingual program?	-Parents only care if you pass your courses. -There are parents' meetings, many parents come. -My parent comes. -My parent never comes. -My parent comes sometimes.
(Spontaneously:)	-My biggest embarrassment here was when an American girl told me I could speak Spanish but not write it. They think we are illiterate.

How would you compare your skills in two languages?	-We get better marks in English than in Spanish. -That's true.
Questions	**Responses**
Why is that so?	-The Spanish teachers are stricter. -They expect more. -It is also because you learn more technical stuff in English.
Do you work after school?	Of the five students present, two said "yes" and three "no".
What would you say are the problems that affect the students the most?	-Personal problems. -Drugs -Everything depends on the student. -The causes of failure are not in the school but out of the school.
What problems?	-Family, economic..... strictness of parents. -Sometimes other students have problems with us. Black students perceive that they will remain in the same social class while they envy us.
Do you feel that you get the same services and resources that other students in the school get?	-No. -Labs for instance. We cannot use the chemistry lab. -Many times we are the last to hear about things.
Without the program, how do you think you would perform academically?	-I would not be as advanced. -I would be a little behind. -The program is very good. -The emphasis on two languages gives one self-value and more value in education.

VI. FINDINGS

ASSESSMENT PROCEDURES, INSTRUMENTS, AND FINDINGS

The following section presents the assessment instruments, the procedures, and the results of testing conducted to evaluate student achievement in 1980-1981.

Students were assessed in English language development, growth in their mastery of their native language, mathematics, social studies, and science. The following are the areas assessed and the instruments used:

English as a second language -- CREST (Criterion Referenced English Syntax Test, Levels I, II, III)

Reading in Spanish -- Interamerican Series, Prueba de Lectura (Total Reading, Forms BS and AS, intermediate and advanced levels, 1950 version)

Mathematics performance -- Teacher-made tests

Science performance -- Teacher-made tests

Social studies performance -- Teacher-made tests

Native language arts performance -- Teacher-made tests

Attendance -- School and program records

The following analyses were performed:

Data from pre/post standardized tests of Spanish reading achievement, statistical and educational significance are reported in Table 19. This table presents results separately for students taking different levels of the test and for students at different grade levels.

Statistical significance was determined through the application of the correlated t-test model. This statistical analysis demonstrates whether the difference between pre-test and post-test mean scores

is larger than would be expected by chance variation alone; i.e. is statistically significant.

This analysis does not represent an estimate of how students would have performed in the absence of the program. No such estimate could be made because of the inapplicability of test norms for this population, and the unavailability of an appropriate comparison group.

Educational significance was determined for each grade level by calculating an "effect size" based on observed summary statistics using the procedure recommended by Cohen[1]. An effect size for the correlated t-test model is an estimate of the difference between pre-test and post-test means expressed in standard deviation units freed of the influence of sample size. It became desirable to establish such an estimate because substantial differences that do exist frequently fail to reach statistical significance if the number of observations for each unit of statistical analysis is small. Similarly, statistically significant differences often are not educationally meaningful.

Thus, statistical and educational significance permit a more meaningful appraisal of project outcomes. As a rule of thumb, the following effect size indices are recommended by Cohen as guides to interpreting educational significance (ES):

a difference of 1/5 = .20 = small ES

a difference of 1/2 = .50 = medium ES

a difference of 4/5 = .80 = large ES

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[1]Jacob Cohen. Statistical Power Analysis for the Behavioral Science (Revised Edition). New York: Academic Press, 1977 Chapter 2.

The instrument used to measure growth in English language was the Criterion Referenced English Syntax Test (CREST), which tests mastery of specific syntactic skills at three levels. Material at the beginning and intermediate levels of the CREST is broken down into 25 objectives per level, such as present-tense forms of the verb "to be" (Level I), or possessive adjectives and pronouns (Level II). Material at the advanced level (Level III) is organized into 15 objectives, such as reflexive pronouns. At each level, students are asked to complete four items for each objective. An item consists of a sentence frame for which the student must supply a word or phrase chosen from four possibilities. Mastery of a skill objective is determined by a student's ability to answer at least three out of four items correctly.

This report provides information on the average number of objectives mastered, and the average number of objectives mastered per month of treatment by students who received Title I E.S.L. instruction in fall and spring semesters (Tables 11 and 13), and by students receiving non-Title I E.S.L. instruction during the fall and spring semesters. (Tables 15 and 17).

Information is also provided on students' performance at the various test levels. Tables 12, 14, 16, and 18 contain grade and level breakdowns for students who were pre- and post-tested with the same test level.

Rates of success of students in mathematics, science, social studies, and native language arts courses taught in the bilingual program are reported by course and by grade. These tables contain the numbers of

students reported as taking the relevant courses, and the percent passing, for fall and for spring courses separately. The tables reporting this data are listed below by subject content area.

Subject	Table Number
mathematics	20, 21
science	22, 23
social studies	24, 25
native language arts	26, 27

Comparisons of the attendance rates of program participants with that of the school as a whole are presented by grade in Table 28.

This table contains average rates for the school and for the *t* statistic, and its level of statistical significance. Although the *t* statistic used here is slightly different than that described above, it again indicates the extent to which the observed percentage differences vary from what might be expected by chance.

Table 11. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. Title I Spanish-speaking students, fall)

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	49	7.6	11.8	4.2	2.7	1.6
10	33	8.4	11.7	3.3	2.6	1.3
11	17	8.4	12.3	3.9	2.6	1.5
12	3	6.7	10.7	4.0	2.7	1.5
TOTAL	102	7.9	11.7	3.8	2.6	1.5

*Post-test minus pre-test.

- Approximately one-third of program participants were classified as Title I students and pre- and post-tested with the CREST in the fall.
- These Spanish-speaking Title I students showed, on average, a gain of one-and-a-half CREST objectives per month, which is fifty percent above the rate set as the program objective.
- Students at all grade levels show almost equally large gains.

Table 12. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. Title I Spanish-speaking students, fall)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	29	7.2	11.9	4.7	10	11.0	13.8	2.8	10	5.5	9.7	4.2
10	8	7.4	10.4	3.0	9	8.9	12.8	3.9	16	8.7	11.8	3.1
11	3	5.7	9.0	3.3	5	7.2	12.8	5.6	9	9.9	13.2	3.3
12	1	0	7.0	7.0	----------				2	10.0	12.5	2.5
TOTAL	41	6.9	11.3	4.4	24	9.4	13.2	3.8	37	8.1	11.1	3.0

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

.Students in higher grades generally took Levels II or III of the CREST.

.Students taking Level I generally show larger gains than do those taking a higher level of the test.

Table 13. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. Title I Spanish-speaking students, spring).

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	46	10.4	13.7	3.3	2.5	1.3
10	22	8.9	13.0	4.1	2.7	1.5
11	15	11.6	15.1	3.5	2.8	1.2
12	3	10.0	14.3	4.3	2.9	1.5
TOTAL	86	10.2	13.8	3.6	2.6	1.4

*Post-test minus pre-test.

- One-sixth fewer Title I students were pre- and post-tested in the spring than were tested in the fall.
- Although ninth graders mastered somewhat fewer new objectives in the spring than they did in the fall, the overall rate of gain is almost as good as that in the fall.

Table 14. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. Title I Spanish-speaking students, spring)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	19	8.2	11.9	3.7	27	11.9	15.0	3.1	----------			
10	5	2.6	7.8	5.2	11	10.5	15.0	4.5	6	11.2	13.7	2.5
11	4	12.0	16.0	4.0	7	11.7	16.6	4.9	4	11.2	11.5	0.3
12	----------				1	7.0	17.0	10.0	2	11.5	13.0	1.5
TOTAL	28	7.7	11.7	4.0	46	11.4	15.3	3.9	12	11.2	12.8	1.6

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

. In the spring a majority of students were tested at Level II, while in the fall, less than one in four had been tested on this level. Students were apparently switched down from Level III as many others moved up from Level I.

. In general, students in the higher grades still took higher levels of the CREST.

. While achievement on Levels I and II was quite comparable to that in the fall, students taking Level III gained fewer objectives than did students taking Level III in the fall or students taking a lower level in either semester. The fewer objectives earned at Level III is most probably due to a ceiling effect on the test.

Table 15. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. non-Title I Spanish-speaking students, fall).

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	62	8.0	10.7	2.69	2.61	1.03
10	54	8.8	11.2	2.39	2.89	0.83
11	28	10.5	12.3	1.79	2.83	0.63
12	7	10.1	15.4	5.29	3.01	1.76
TOTAL	151	8.87	11.41	2.54	2.78	0.91

*Post-test minus pre-test.

- Just over one-half of program participants were reported to have been pre- and post-tested with the CREST in the fall and were not Title I students.
- These students showed, on the average, a gain of just less than one CREST objective per month, which is slightly below the program objective and well below the rate of Title I students during the same time period. Part of this difference is probably due to the larger proportion (49, as opposed to 36 percent) of these students taking Level III (see the next table).
- The small group of twelfth graders made outstanding gains, while eleventh graders generally did not do as well. This lower performance can be partially accounted for by the large proportion of students with high pre-test scores on Level III (see the next table).
- Ninth and tenth graders mastered new material at about the expected rate.

Table 16. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. non-Title I Spanish-speaking students, fall)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	22	7.6	11.2	3.6	14	12.1	12.8	0.7	26	6.2	9.2	2.0
10	10	5.9	9.9	4.0	19	9.3	13.3	4.0	25	9.6	10.2	0.5
11	2	6.0	9.5	3.5	6	12.2	17.2	5.0	20	10.5	11.2	0.7
12	1	6	15	9	3	11.3	17.7	6.3	3	10.3	13.3	3.0
TOTAL	35	7.0	10.8	3.86	42	10.8	14.0	3.19	74	8.7	10.2	1.54

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

- Students in higher grades more often took Level II or III of the CREST.
- Students taking Level I, like their Title I peers, generally show larger gains than do those taking a higher level of the test.
- The small gains on Level III are probably due, in part, to the greater difficulty of objectives at this level and to the high initial scores of many students which restricted subsequent gains.

Table 17. Results of the Criterion Referenced English Syntax Test (CREST): number of objectives mastered, and objectives mastered per month.

(E.S.L. non-Title I Spanish-speaking students, spring).

Grade	# of Students	Average Number of Objectives Mastered Pre	Post	Objectives Mastered*	Average Months of Treatment	Objectives Mastered Per Month
9	62	9.9	12.0	2.19	2.79	0.79
10	45	9.1	11.2	2.09	2.94	0.71
11	31	12.0	13.0	1.03	2.90	0.36
12	10	9.5	11.2	1.70	3.02	0.56
TOTAL	148	10.0	11.9	1.88	2.88	0.66

*Post-test minus pre-test.

- The overall rate of gain of only two-thirds of an objective per month of instruction is less than half that of Title I students.
- Although students at all grade levels mastered fewer new objectives in the spring than they did in the fall, the eleventh and twelfth graders showed especially large drops from their fall performances.
- The low gains indicated here are partially due to the inappropriateness of the test for many of the students (see the next table).

Table 18. Performance of students tested on the Criterion Referenced English Syntax Test (CREST): average number of objectives mastered by grade and test level.

(E.S.L. non-Title I Spanish-speaking students, spring)

	LEVEL I				LEVEL II				LEVEL III			
		Average Number of Objectives Mastered				Average Number of Objectives Mastered				Average Number of Objectives Mastered		
Grade	N	Pre	Post	Gain*	N	Pre	Post	Gain*	N	Pre	Post	Gain*
9	17	8.2	10.8	2.6	13	13.5	16.2	2.6	32	9.3	11.1	1.8
10	5	7.4	12.4	5.0	11	9.5	13.6	4.1	29	9.3	10.1	0.8
11	3	9.7	16.0	6.3	4	15.3	16.3	1.0	24	11.7	12.1	0.4
12	----------				----------				10	9.5	11.2	1.7
TOTAL	25	8.2	11.7	3.52	28	12.2	15.2	3.00	95	9.9	11.0	1.13

NOTE: number of objectives for each level: Level I (25), Level II (25), Level III (15).

*Post-test minus pre-test.

- In the spring almost two-thirds of non-Title I students were tested at Level III, while in the fall, less than one-half had been tested on this level.
- While a majority of students in all grades took Level III, even larger proportions of students in the higher grades were administered this level.
- While achievement on Levels I and II was quite acceptable (not much lower than that in the fall), students taking Level III gained very few objectives. At all grades, but especially for eleventh graders, making large gains on Level III of this test was virtually impossible because initial scores averaged only five points below the maximum possible score (only three points below for eleventh graders).

Table 19. Spanish reading achievement.

Significance of mean total raw score differences between initial and final test scores in native language reading achievement of students with full instructional treatment on the Prueba de Lectura (total reading, forms BS and AS) by grade and test level.

			Pre-test		Post-test						
Level	Grade	N	Mean	Standard Deviation	Mean	Standard Deviation	Mean Difference	Correl. Pre/post	t	p	ES
2	9	23	45.3	25.8	54.5	29.2	9.2	.962	5.23	.001	1.11
TOTAL*		25	47.2	25.7	56.2	28.7	9.1	.963	5.70	.001	1.14
3	9	51	43.3	13.8	61.3	17.5	18.0	.730	10.73	.001	1.50
	10	12	51.9	10.2	68.5	12.0	16.6	.803	8.02	.001	2.31
TOTAL*		64	44.5	13.9	62.1	17.1	17.6	.762	12.64	.001	1.58
4	9	30	51.1	13.8	62.3	16.4	11.2	.827	6.67	.001	1.22
	10	33	40.6	15.2	50.1	19.6	9.5	.808	4.71	.001	0.82
	11	15	49.9	18.5	58.9	17.3	8.9	.879	3.90	.002	1.07
TOTAL*		79	47.1	15.3	56.7	18.6	9.6	.840	8.45	.001	0.95
5	10	23	40.8	17.0	51.6	20.6	10.8	.888	5.42	.001	1.13
	11	29	40.1	13.4	53.2	16.4	13.1	.817	7.48	.001	1.39
	12	12	59.5	15.2	69.3	11.6	9.8	.797	3.71	.003	1.07
TOTAL*		67	44.1	16.4	55.6	17.5	11.5	.859	10.20	.0001	1.25

*Totals include small numbers of students whose grade was not reported or were in grades not listed above.

Table 19. Spanish reading achievement.
(continued)

.Almost 80 percent of program participants were pre- and post-tested with the same level of this test.

.The large size of the correlations and the values of the pre-test means and standard deviation indicate that students were generally administered the appropriate level of the test.

.At all levels of the test and in all grades, students made statistically significant raw score gains.

.The educational significance of all gains is quite large.

.Ninth and tenth graders taking Level 3 and the eleventh graders taking Level 5 made especially outstanding gains.

Table 20. Number of students attending courses and percent passing teacher-made examinations in mathematics (fall).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
General Math I	54	19%	5	20%	3	100%			62	23%
General Math II	35	57	11	73	5	80	1		51	63
"SMILE"	9	33	9	44	7	100	2	100	27	59
Algebra I	18	39	22	59	5	60			45	51
Algebra II	1		14	79	11	91			26	77
Algebra III	2	100	1	100	5	100	2	100	10	100
Intermediate Algebra							3	67	3	67
Regents Comp. Math			1	100	1		2	100%	4	75
TOTAL	119	35%	63	62%	37	86%	10	80%	228	54%

- Approximately three-fourths of program students were reported to have taken a math course in the fall.
- Over all, just a few more than one-half of math students passed their courses. In mathematics, then, the program failed by a large margin to reach its objective of 70 percent passing.
- Eleventh and twelfth graders, however, actually surpassed by wide margins the program objective in almost all of their courses.
- In general, only one in three ninth graders passed mathematics.
- While tenth graders did much better than their younger school-mates, they failed to reach the criterion level.
- Students in the more advanced courses generally did better than those in the lower level courses.

Table 21. Number of students attending courses and percent passing teacher-made examinations in mathematics (spring).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
General Math I	42	21%	7	57%	1	100%			50	28%
General Math II	35	34	6	33	5	20	1	-	47	33
"SMILE"	16	44	9	56	2	100			27	52
Algebra I	24	37	25	28	6	67			55	36
Algebra II	9	78	16	44	3	33			28	54
Algebra III	1		9	67	13	38			23	48
Geometry I	2	50	1	100	7	57	2	-	12	50
Regents Comp. Math	2		3		6	50			11	27
TOTAL	131	35%	76	42%	43	49%	3	0%	253	39%

- The proportion of students reported to have taken a math course increased in the spring to better than five in six.
- The overall ratio of students passing, however, decreased to only 39 percent.
- Although the passing rate for eleventh graders (almost 50 percent) was better than that for ninth graders, even the older students failed by a wide margin to reach the program objective in the spring.
- Passing rates in all courses were below 55 percent.
- Ninth-grade students enrolled in Algebra II were the only group that reached the criterion level of 70 percent.

Table 22. Number of students attending courses and percent passing teacher-made examinations in science (fall).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
General Science I	82	66%	3	100%					85	67%
General Science II	12	17	19	68	9	89	1	100	41	59
General Biology I	14	100	33	91	6	67	1	100	54	91
General Biology II			13	69	9	89	4	50	26	73
Chemistry					2	100	1	100	3	100
TOTAL	108	65%	68	82%	26	85%	7	71%	209	73%

- Approximately 70 percent of program students were reported to have taken a science course in the fall.
- All groups approached or exceeded the program objective except the 12 ninth graders taking General Science II, and the four twelfth graders taking General Biology II.
- Tenth and eleventh graders exceeded the program objective by more than ten percent.
- Students in the general science courses generally did worse than those in the more advanced courses.
- Students did especially well in General Biology I.

Table 23. Number of students attending courses and percent passing teacher-made examinations in science (spring).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
General Science II	108	46%	6	50%	1	0			115	43%
General Biology I	2	100	15	87	1	100			18	89
General Biology II	14	71	35	86	4	75	1	100	54	81
TOTAL	124	50%	56	82%	6	67%	1	100%	187	60%

- In the spring, only 62 percent of program participants reportedly took a science course.
- Most science students in the spring were either ninth graders taking General Science II or tenth graders taking General Biology II.
- As with mathematics, the success rate in science courses dropped dramatically in the spring from the fall rate and was ten percent below the program objective.
- According to the assistant principal (foreign language, E.S.L. bilingual department) the larger increase in the spring failure rate was due to the greater number of "holdover" students included in these classes, who had already experienced academic difficulty.
- The poor overall spring showing in science was due entirely to the General Science course.
- In the biology courses success rates were well above the 70 percent level.

Table 24. Number of students attending courses and percent passing teacher-made examinations in social studies (fall).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
American History I	2	50%	5	40%	21	81%	9	100%	37	78%
Eastern Civilization	111	33	26	73	1	0			138	41
Western Civilization	6	33	36	56	8	75	1	100	51	57
Economics Academic	2	50	5	40	10	100	1	100	18	78
TOTAL	121	34%	72	60%	40	82%	11	100%	244	52%

- Approximately 82 percent of program students were reported to have taken a social studies course in the fall.
- Only a little over half of these students passed their course, however, which is well below program expectation (70 percent).
- Success rates varied considerably from one grade to another, with eleventh graders doing very well and twelfth graders passing all of their courses.
- Ninth graders passed at only a one-in-three rate.
- While tenth graders did much better than their younger school-mates, they failed to reach criterion level.
- The low success rate in Eastern Civilization is due to the large proportion of ninth graders in this course.
- In Western Civilization, however, both ninth and tenth graders achieved low passing rates.

Table 25. Number of students attending courses and percent passing teacher-made examinations in social studies (spring).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
American History I	1	100%	8	50%	24	50%	7	100%	40	60%
Eastern Civilization	118	23	23	48	1	100			142	27
Western Civilization	2	0	27	30	2	50			31	29
Economics Academic	11	27	20	70	9	44	1	100	41	54
TOTAL	132	23%	78	47%	36	50%	8	100%	254	37%

- Approximately 85 percent of program students were reported to have taken a social studies course in the spring.
- As with mathematics and science courses, the success rate in social studies courses dropped dramatically in the spring from the fall rate and was, in fact, more than 40 percent below the program objective.
- Large declines in success rates occurred in all but the twelfth grade, and the eleventh graders show an especially dramatic decline.
- Although Eastern and Western Civilization were again the lowest, in none of the courses offered was the passing rate close to the program criterion (70 percent passing).
- The twelfth graders taking American History and the tenth graders taking Economics were the only groups of significant size passing at a satisfactory rate.
- As in most other areas, the success rate increases steadily from ninth through twelfth grade.

Table 26. Number of students attending courses and percent passing teacher-made examinations in native language arts (fall).

COURSE	GRADE 9		GRADE 10		GRADE 11		GRADE 12		TOTAL	
	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING	N	PERCENT PASSING
Native Language Level I Ac.	42	40%	4	25%					46	39%
Native Language Level II Ac.	59	53	14	79	4	75			77	58
Native Language Level III Ac.	14	79	37	86	11	82	2	100	64	84
Native Language Level IV	2	100	17	76	26	77	4	75	49	78
Native Language Advanced Placement					1	100	3	100	4	100
TOTAL	117	52%	72	79%	42	79%	9	89%	240	66%

- Approximately 80 percent of program students were reported to have taken a native language arts course in the fall.
- The overall success rate is only four percentage points below the 70 percent program objective.
- Success rates generally increase from grade to grade. Rates also increased in higher level courses. There is a strong correlation between the students' level in school and the level of the courses they took, however, so it is not entirely possible to determine whether the grade or the level of the course is more closely related to success.
- Native Language Arts I was by far the most difficult course.
- Native Language Arts IV was a partial exception to the rule of increasing passing rates with course level.

Table 27. Number of students attending courses and percent passing teacher-made examinations in native language arts (spring).

COURSE	GRADE 9 N	GRADE 9 PERCENT PASSING	GRADE 10 N	GRADE 10 PERCENT PASSING	GRADE 11 N	GRADE 11 PERCENT PASSING	GRADE 12 N	GRADE 12 PERCENT PASSING	TOTAL N	TOTAL PERCENT PASSING
Native Language Level I Ac.	21	29%	2	0					23	26%
Native Language Level II Ac.	75	57	14	86	2	50			91	62
Native Language Level III Ac.	24	83	32	78	16	62	1	100	73	77
Native Language Level IV Ac.	6	67	28	79	20	75	1	0	55	75
Native Language Advanced Placement			2	50	3	67	3	67	8	62
TOTAL	126	58%	78	77%	41	66%	5	80%	250	66%

- Eighty-four percent of program students were reported to have taken a native language arts course in the spring.
- The overall success rate was identical to that in the fall.
- The more advanced courses again had higher pasing rates, although the advanced placement course was an exception.
- Although ninth graders increased their passing rate by six percentage points, eleventh and twelfth graders' rates dropped below the 70 percent criterion.
- Only in the level III and IV courses did success rates exceed the program criterion.
- The passing rate in Native Language Arts I was even worse in the spring than in the fall.
- The performance of the advanced ninth graders taking Native Language Arts III actually exceeded that of their older peers in the same course.

Table 28. Significance of the difference between attendance percentages of program students and the attendance percentage of the school.

Average School-Wide Attendance Percentage: 71.9%

Grade	N	Mean Percentage	Standard Deviation	Percentage Difference	t	p
9	134	86.0	13.7	14.0	11.8	.001
10	82	93.0	7.1	21.1	26.8	.0001
11	45	92.5	6.6	20.6	21.0	.0001
12	12	95.8	3.0	23.8	27.0	.001
TOTAL	274	89.6	11.3	17.7	25.9	.001

- Program participants at all grade levels attended at rates averaging higher than 85 percent. Their overall average attendance rate was over 89 percent, or 18 percent higher than the schoolwide average.
- The differences between program rates and that of the school were all highly significant statistically.
- Attendance rates generally improved from ninth through twelfth grades.

SUMMARY OF FINDINGS

Achievement in English as a second language. Title I students in E.S.L. classes made very satisfactory progress in their knowledge of English syntax. Students mastered an overall average of 1.5 objectives per month of instruction, 50 percent above the rate set as the program objective.

In non-Title I E.S.L. classes, students made gains which were lower than those achieved by the Title I students, averaging .91 objectives mastered per month in the fall, and .66 in the spring. In good part, however, this pattern was a product of student success. More than half of the non-Title I students were functioning on the advanced level of the test, where the small number of objectives assessed restricts student growth.

Reading in Spanish. Program students tested with the Prueba de Lectura achieved gains at all test and grade levels which were statistically significant below the .01 level. These gains were judged to be of great educational significance at all levels reported.

Achievement in mathematics. While most program students were reported to have a mathematics course in fall and spring, passing rates fell below the 70 percent criterion level for most courses reported. Overall passing rates were 54 percent in the fall and 39 percent in the spring. Ninth graders experienced the greatest difficulties in the fall. The pattern was more complex in the spring, with some students experiencing difficulties in each grade.

Program personnel reviewed the outcomes in this area and indicated that achievement rates in the content areas include mandatory failures due

to excessive or unexcused absences. These failures deflate especially the ninth-grade passing rates. The project director also noted that many entering ninth graders have little or no formal mathematics training in their native countries, and may receive varied levels of preparation from feeder junior high schools (if they have come from a feeder school). She also noted that the school-wide passing rate in mathematics was 43 percent, excluding failures due to excessive or unexcused absences. In comparison, the bilingual students appear to have achieved passing rates which are similar or superior to that of the total school population.

Achievement in science. Most program students were reported to have taken a science course in the fall, when the overall passing rate was 73 percent. Students achieved the highest success rates in general biology 1 and 2, and chemistry. Students in both terms had the greatest difficulty with the general science sequence. In the spring, only 43 percent of the enrolled students passed a general science course, in part due to the greater number of holdover students in these classes (who had already experienced academic problems in the previous term). The performance of students in these courses lowered the overall achievement rate to 60 percent in the spring.

Achievement in social studies. In this area as in the others, there was a tendency for achievement to increase by grade level, with ninth graders experiencing the greatest difficulties in both terms. The overall passing rate was 52 percent in the fall and 37 percent in the spring, depressed by the performance of the ninth graders in the eastern civilization course, who constituted the majority of the students reported. In the spring, passing rates were generally lower than in the fall term.

Native language courses. In both fall and spring terms, 66 percent of the program students taking Spanish language and literature courses passed them. In the fall, achievement rates tended to increase with grade level, with the lowest achievement demonstrated by ninth graders in lower level native language courses. Most students in grades ten, eleven, and twelve achieved passing rates above the 70 percent criterion level.

In the spring, the ninth graders achieved the lowest overall passing rate, while the tenth graders achieved the highest. Ninth-grade achievement was somewhat higher in the spring than in the fall, while that of eleventh graders was lower.

Attendance. The average attendance of program students was 89.6 percent. This exceeded the school-wide rate of 71.9 percent at very high levels of statistical significance.

VII. CONCLUSIONS AND RECOMMENDATIONS

OUTLOOK FOR THE FUTURE

Looking forward to the program's third year, the principal/ project director anticipated progress in four areas.

Curriculum Development

She stressed the importance, in curriculum planning, of spiralling, that is, re-introducing material, at intervals, in a way that ties it in with current and past topics of study. She said that spiralling is particularly crucial in math instruction.

She added that she hopes to initiate a close look at all courses of study to evaluate whether spiralling is a feature of curricula, and to determine whether it is of optimal use to teachers. The availability of complete and effective curricula is particularly vital in a setting where high staff mobility is a fact of life. Courses of study must be accessible and useful to a teacher who is entirely new to the program, or who takes over a class during the school year.

Staff Development

The principal stated that in the bilingual program, as in other departments, staff development activities should concentrate more on lesson planning. In the bilingual program, teachers must plan, in concrete terms, what vocabulary will be introduced and in which language; careful planning is necessary to ensure the use of two languages in content-area classes without perpetuating code-switching.

Vocational and Career Orientation

In discussing the program's supportive services, which the principal termed crucial to students' success, she mentioned the need for more vocational orientation. She remarked that if students are asked to write down all the jobs that they know of, they will produce short lists: teacher, lawyer, police officer. Students need the answers to basic questions: what are entry level jobs? what is needed to qualify for them? She said the courses of study might be revised to incorporate a career component into every area.

Faculty Relations

To improve the relations between the bilingual staff and the mainstream faculty, the principal spoke of the need to enhance the program's status within the school. She felt that frequent publication and distribution of results on standardized tests, indicating scores by bilingual students and by mainstream students, would help to document the program's strides and would help to gain respect for its work.

CONCLUSIONS

Its emphasis on a uniform and structured approach to education in two languages distinguishes Betterment through Bilingualism from many other bilingual programs. Basic to the program's day-to-day operation is the conviction that teachers' assiduous planning and disciplined presentation of material can help students to make strides in both languages at once.

The program is strongly transitional, in that it requires the use of English and Spanish in every content-area course. It has communi-

cated its philosophy to students and parents, and has developed a concrete methodological model which realizes the program's philosophy in the classroom every day.

Despite the fact that her administrative responsibilities removes her from the program's daily work, the principal has retained the role of project director. Her double role lends authority to the program's stated policies, and may in part account for the fact that such a rigorous instructional model has been so uniformly applied.

The model might appear to be restricting, to impinge on the individual teacher's initiative, for it spells out how each lesson is to be structured. However, this would not seem to be the case, for teachers are given considerable leeway in developing new bilingual courses which draw on their own interests and experience.

Fundamental to the success of a two-language approach is a teaching staff which is truly bilingual. Locating and retaining fully qualified teachers has apparently been a problem, since attracting teachers to a high school in the heart of the South Bronx has not been easy, and staff mobility is high. The principal's efforts to improve the school's image in the educational community, for example by publicizing the program in the U.F.T. newspaper, have therefore been important.

This report has devoted several pages to the characteristics and instructional treatment of the program's English-dominant students. This attention may, in some respects, be disproportionate, since the large majority of program students do not fall into this category. The stress on this group does not suggest the seriousness of the problem at Morris; it reflects, rather the fact that the program staff is thinking about and

trying to work with a population which all too often has been ignored throughout the school system.

Supportive services have been vital to the program's work. The record of visits to students' homes has been particularly impressive and well documented.

The limited availability of laboratory facilities, both for science and language study, presents a problem from two viewpoints: first and most simply, it restricts students' classroom experience and deprives them of opportunities to work independently with close supervision; secondly, it may impair students' self-esteem, since a number of participants expressed to the evaluators their disappointment at not having access to the same facilities available to mainstream students. However, steps have been taken to address this problem.

The pattern of student achievement indicates that program participants are generally making good progress in English and Spanish, while achievement in the content areas is more varied. It appears to be the ninth graders who experience the greatest academic difficulties in these courses. According to the project director, low achievement may result from two interrelated factors -- inadequate academic preparation and excessive absences. This pattern is by no means limited to Morris High School. Rather, it occurs in a number of New York City's public high schools, and calls for attention.

RECOMMENDATIONS

On the basis of visits to Morris by two evaluators, the following recommendations are offered:

1. that the project pursue the goals for the future discussed by the principal and outlined above, with particular attention to career development;

2. that the program's concrete approach to language usage in the classroom be documented and shared with other Title VII programs;

3. that staff development activities include discussion and analysis of the instructional treatment of the program's English-dominant students, to clarify the apparent confusion among staff members on this topic;

4. that content-area teachers who are not fully bilingual be encouraged to work, in an ongoing way, toward improving their skills and gaining confidence in using two languages in the classroom;

5. that teachers and students be involved in the work of the Parents' Advisory Committee;

6. that in view of limited parental involvement, the program staff might look into the family language program at John Jay High School to explore whether such an approach might benefit Morris students;

7. that the situation of LEP students who are not included in the program's target population be clarified;

8. that the special needs of ninth-grade students be evaluated and considered by the program staff, particularly those providing the supportive services so crucial to students' success;

9. that the staff evaluate whether the school's existing facilities, and equipment for biology and languages, might be made more available to program students;